

Industrial IP30 LoRa Node Controller

LN1130/LN1140

Quick Installation Guide

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1. Package Contents

Thank you for purchasing PLANET Industrial LoRa Node Controller, LN series. The descriptions of these models are as follows:

LN1130	Industrial IP30 LoRa Node Controller (Modbus RS232, RS485)
LN1140	Industrial IP30 LoRa Node Controller (2 DI, 2 DO)

"LoRa Node Controller" is used as an alternative name in this Quick Installation Guide.

Open the box of the **LoRa Node Controller** and carefully unpack it. The box should contain the following items:

LN1130	LN1140
LoRa Node Controller x 1 QR Code Sheet x 1 LoRa Antenna x 1 Wall Mounting Kit x 1	LoRa Node Controller x 1 QR Code Sheet x 1 LoRa Antenna x 1 Wall Mounting Kit x 1

If any item is found missing or damaged, please contact your local reseller for replacement.

2. Requirements

- Workstation running Windows 10/11 is equipped with USB interface
- One end of micro USB cable is attached to the USB port, while the other end to the micro USB connector of the **LN1130/LN1140**
- PLANET **LoRa Node Controller Tool** software

3. Hardware Introduction

Refer to the illustration and follow the simple steps below to quickly install your **LoRa Node**.

3.1 LoRa Node device

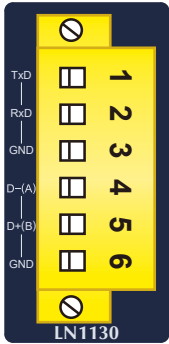
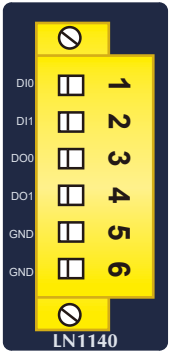


Figure 1: LN1130 FRONT VIEW



Figure 2: LN1140 FRONT VIEW

3.2 Data Interface

Model	LN1130		LN1140	
I/O interface				
PIN	Definition	Description	Definition	Description
1	TxD	RS232	DI0	DI
2	RxD		DI1	
3	GND		DO0	DO
4	D-(A)	RS485	DO1	
5	D+(B)		GND	Ground
6	GND		GND	

3.3 LED Indicators

LED	Color	Function	
PWR	Green	Lights	Power is activated.
		Off	Power is inactivated.
LoRa	Green	Lights	LoRa module is connected and ready.
		Blinks	LoRa module sending or receiving.
		Off	LoRa module failed to connect.

3.4 LoRa Antenna Installation

Step 1: Rotate the antenna clockwise to connect to the LoRa Node Controller.

Step 2: The external LoRa antenna should be positioned vertically for a good signal.



Figure 3: Connecting LoRa Antenna

3.5 Wiring Power Input

The 2-contact terminal block connector on the top panel of **LoRa Node Controller** is used for one DC power input or one AC power input. Please follow the steps below to insert the power wire.



Note

When performing any of the procedures like inserting the wires or tightening the wire-clamp screws, make sure the power is OFF to prevent from getting an electric shock.

Insert positive and negative DC power wires into contacts 1 and 2 for POWER.

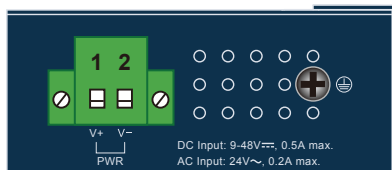


Figure 4: LoRa Node Controller TOP VIEW

Tighten the wire-clamp screws for preventing the wires from loosening.

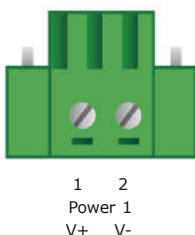


Figure 5: 2-pin Terminal Block



Note

The DC power input range is 9-48V DC or 24V AC.
The device provides input voltage polarity protection.



Note

For industrial applications, it's suggested not to release the metal case and use an independent power supply.

3.6 Mounting Installation

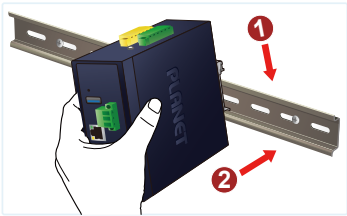
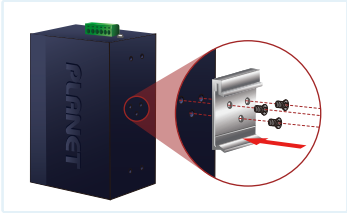
This section describes the functionalities of the Industrial **LoRa Node** and guides you to installing it on the DIN-rail and wall. Please read this chapter completely before continuing.



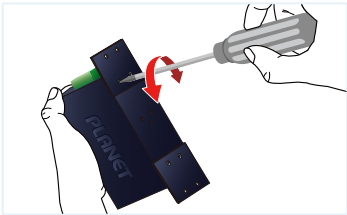
Note

This following pictures show the user how to install the device,
and the device is not LN1130 or LN1140.

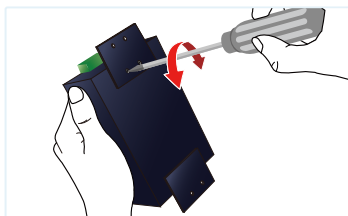
3.6.1 DIN-rail Mounting Installation



3.6.2 Wall-mount Plate Mounting



3.6.3 Side Wall-mount Plate Mounting



Caution

You must use the screws supplied with the wall-mounting brackets. Damage caused to the parts by using incorrect screws would invalidate your warranty.

4. Managing LoRa Node Controller

Download PLANET LoRa Node Controller Tool software from Planet web site.

<https://www.planet.com.tw/en/support/downloads?&method=keyword&keyword=LN&view=6#list>.

Power on the **LoRa Node** device and then connect it to computer via **micro USB port**.

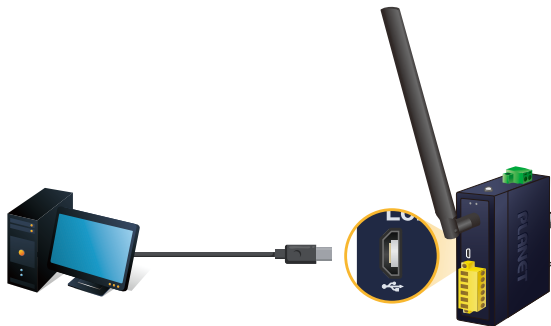


Figure 6: Connecting LoRa Node Controller to computer via Micro USB Cable



Note

The box of the LN1130/LN1140 does not contain any USB cable.

Open the Tool and select “**Serial port**”, and then enter password to log in Utility. (Default password: **admin**)

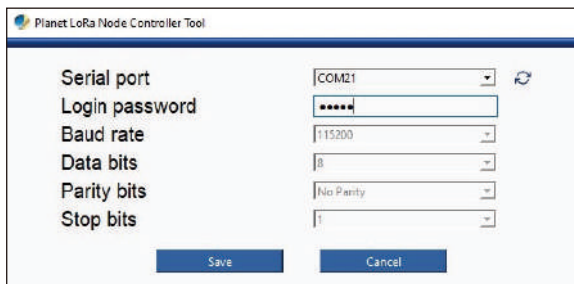


Figure 7: The Utility of Login Page



Note

For security reason, please change and memorize the new password after this first setup.

After entering the password, the main screen appears as shown below.



Planet LoRa Node Controller Tool	
System I/O Interface LoRa Maintenance	
Model	LN1130
DevEUI	A8F7E01100100002
FW Version	v1.120b230310
LoRaWAN Version	v1.0.4
Join Status	Activate
Uplink Frame-counter	0
Downlink Frame-counter	0

Figure 8: LoRa Node Device's Status

The function menu on the top of the tool lets you access all the commands and configuration the LoRa Node Controller provides.



Planet LoRa Node Controller Tool			
System	I/O Interface	LoRa	Maintenance
Status	Basic	LoRaWAN	DateTime
Environment	RS232	Frequency	FirmwareUpgrade
	RS485		

Figure 9: LN1130 Function Menu



Figure 10: LN1140 Function Menu

Now, you can use the LoRa Node Controller Tool software to continue the LoRa Node Controller management.

Please select the correct Frequency for LoRaWAN by country or in a location you stay before doing the LoRaWAN setting.

Please refer to the user's manual for more.

5. Customer Support

You can browse our online FAQ resource and User's Manual on PLANET Web site first to check if it could solve your issue. If you need more support information, please contact PLANET support team.

PLANET online FAQs:

<https://www.planet.com.tw/en/support/faq.php?method=keyword&keyword=LN>

Support team mail address:

support@planet.com.tw

LN Series User's Manual:

<https://www.planet.com.tw/en/support/downloads?&method=keyword&keyword=LN1130&view=3#list>

<https://www.planet.com.tw/en/support/downloads?&method=keyword&keyword=LN1140&view=3#list>



(Please select your model name from the drop-down menu of Product Models.)

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